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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,493	07/10/2003	Min-Seon Kim	1349.1267	9714
21171	7590	08/25/2005	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			CHEN, SOPHIA S	
			ART UNIT	PAPER NUMBER
			2852	

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/616,493

Applicant(s)

KIM, MIN-SEON

Examiner

Sophia S. Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-23 is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Ex parte Quayle

1. This application is in condition for allowance except for the following formal matters:

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "output terminal thereof to connect with each (emphasis added) of the switching elements" (claim 6, lines 2-3) and "the output terminal of the voltage switching unit which is connected with each (emphasis added) of the switching elements" (claim 6, lines 8-10) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

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application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informality: page 10, paragraph [0044], line 1, "190" (second occurrence) should be labeled as "190a". Appropriate correction is required.

Claim

4. Claim 1 contains the following informality: line 8, "a plurality of a high voltage distributing units" should be "a plurality of high voltage distribution units".

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Allowable Subject Matter

5. Claims 1-23 are allowed.

6. The following is a statement of reasons for the indication of allowable subject matter: Claim 1 is allowable over the prior art of record because the prior art of record does not teach or suggest a voltage switching unit comprising a plurality of high voltage

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distribution units to branch the voltage supplied to the switching elements into one or more voltages of differing voltage levels, and to supply the branch voltages and the one voltage of the predetermined voltage level to the respective developer units.

Claim 5 is allowable over the prior art of record because the prior art of record does not teach or suggest a plurality of developer units, each comprising a high voltage distribution unit to branch the one voltage supplied via the corresponding switching element into one or more branch voltages, and to supply the one or more branch voltages and the one supplied voltage.

Claim 9 is allowable over the prior art of record because the prior art of record does not teach or suggest an apparatus for supplying voltages to a plurality of developer units, comprising high voltage distribution units to branch the voltage supplied to the switching elements into one or more voltages of differing voltage levels, and to supply the branch voltages together with voltage of the predetermined voltage level to a respective one or ones of the developer units.

Claim 18 is allowable over the prior art of record because the prior art of record does not teach or suggest a plurality of developer units, each comprising plural high voltage distributing units to branch the voltage of the predetermined voltage level supplied via the corresponding switching element into one or more voltages, and to supply the one or more branch voltages together with the voltage of the predetermined voltage level therein.

Citation of Pertinent Prior Art

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mizuno et al. (US Pat. No. 4,924,806) discloses an image forming apparatus comprising a plurality of developer units, a switching unit, and a high voltage source.

Suzuki (US Pat. No. 5,376,998) discloses an image forming apparatus comprising a plurality of developer units, a switching unit having a plurality of switching elements, and a high voltage source.

Hirst (US Pat. No. 5,627,722) discloses an image forming apparatus comprising a plurality of developer units, a switching unit, and a high voltage source.

Folkins (US Pat. No. 5,862,438) discloses an image forming apparatus comprising a plurality of developer units, a switching unit, and a high voltage source.

James et al. (US Pat. Pub. No. US 2002/0067929 A1) discloses an image forming apparatus comprising a plurality of developer units, a high voltage multiplexer, and a high voltage source.

Yoon et al. (US Pat. Pub. No. US 2004/0005165 A1) discloses an image forming apparatus comprising a plurality of developer units, a switching unit having a plurality of switching elements, and a high voltage source.

An et al. (US Pat. Pub. No. US 2004/0067078 A1) discloses an image forming apparatus comprising a plurality of developer units, a plurality of switching elements, and a high voltage source.

Kyung (US Pat. Pub. No. US 2004/0175197 A1) discloses an image forming apparatus comprising a plurality of developer units and a high voltage source.

Yoo (US Pat. No. 6,807,394 B2) discloses an image forming apparatus comprising a plurality of developer units, a switching unit, and a high voltage source.

Saito (JP 04-043372 A) discloses an image forming apparatus comprising a plurality of developer units, a switching unit, and a high voltage source.

Suzuki (JP 05-197254 A) discloses an image forming apparatus comprising a plurality of developer units, a switching unit having a plurality of switching elements, and a high voltage source.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sophia S. Chen whose telephone number is (571) 272-2133. The examiner can normally be reached on M-F (7:00-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sophia S. Chen
Primary Examiner
Art Unit 2852

Ssc
August 23, 2005